

## ABSTRACT

A method for executing operations upon a linked data structure having at least one element such that the time during which the linked data structure is locked is reduced. The method includes performing a first set of operation tasks in a first phase, the first set of operation tasks being operable to effect a first set of element state transitions. A second set of operation tasks is developed in the first phase, the second set of operation tasks being operable to effect a second set of element state transitions, the second set of element state transitions being distinct from the first set of element state transitions. The second set of operation tasks is performed in a second phase. The method finds particular implementation in the rebalancing of tree data structures.